# 

### July 23-July 27, 2018

# Shanghai

### IWOTA 2018

- Date: July 23 27, 2018
- Location: East China Normal University, Shanghai, China
- Host:



華東師紀大學 算子代数研究中心 Research Center for Operator Algebras, ECNU

• Sponsors:





## **Plenary speakers**

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- Xiaoman Chen Fudan University
- Ronald G. Douglas Texas A&M University
- Guihua Gong
   University of Puerto Rico
- Kunyu Guo Fudan University
- Chunlan Jiang Hebei Normal University
- Hanfeng Li
   University of New York at Buffalo
- John E. McCarthy Washington University at St Louis
- Alexei Poltoratski Texas A&M University
- Mikael Rørdam University of Copenhagen
- Roland Speicher Universität des Saarlandes
- Xiang Tang
   Washington University at St Louis
- Andrew S. Toms
   Purdue University

## Semi-plenary speakers

- Sanne Ter Horst North-West University
- David Kerr Texas A&M University
- Gadadhar Misra Indian Statistical Institute
- Zhuang Niu University of Wyoming
- Kai Wang
   Fudan University
- Rufus Willett
   University of Hawaii
- Zhizhang Xie Texas A&M University

## **Special Sessions**

- 1. Function Spaces and Operator Theory
- 2. Free Analysis and Free Real Algebraic Geometry
- 3. Infinite Dimension Systems and Wavelets
- 4. Multivariable Operator Theory
- 5. Non-commutative Geometry
- 6. Operator Spaces and Harmonic Analysis
- 7. Operator Theory and Quantum Information
- 8. Operator Theory on Reproducing Kernel Hilbert Spaces
- 9. Panel Discussion: Women in Mathematics
- 10. Special Week on Operator Algebras



- Function Spaces and Operator Theory Kunyu Guo, Dechao Zheng
- Free Analysis and Free Real Algebraic Geometry
   J. William Helton, Igor Klep, Victor Vinnikov
- Infinite Dimension Systems and Wavelets Marcin Bownik

## Session Organizers

- Multivariable Operator Theory
  - Joseph A. Ball, Ronald G. Douglas, Rongwei Yang
- Non-commutative Geometry Rufus Willett, Xiang Tang, Zhizhang Xie, Yi-Jun Yao
- Operator Spaces and Harmonic Analysis
   Zhong-Jin Ruan, Quanhua Xu

## Session Organizers

- Operator Theory and Quantum Information
   Man-Duen Choi, Hugo J. Woerdeman
- Operator Theory on Reproducing Kernel Hilbert Spaces
   Raul E. Curto, Nikolai L. Vasilevski, Karlovich Alexei Yur'evich
- Panel Discussion: Women in Mathematics
   Hang Wang
- Special Week on Operator Algebras George Elliott, Guihua Gong, Zhuang Niu

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ongwei Yang		
Rufus Willett		
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## The City of Shanghai



Coordinates: Q 31°13'43"N 121°28'29"E

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### For other uses, see Shanghai (disambiguation).

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Shanghai(IPA GAE: //æŋhaɪ/) is one of the four direct-controlled municipalities of China and the most populous city proper in the world with a population of more than 24 million as of 2014.<sup>[11][12]</sup> It is a global financial centre<sup>[13]</sup> and transport hub, with the world's busiest container port.<sup>[14]</sup> Located in the Yangtze River Delta, it sits on the south edge of the estuary of the Yangtze in the middle portion of the East China coast. The municipality borders the provinces of Jiangsu and Zhejiang to the north, south and west, and is bounded to the east by the East China Sea.<sup>[15]</sup>

As a major administrative, shipping and trading city, Shanghai grew in importance in the 19th century due to trade and recognition of its favourable port location and economic potential. The city was one of five treaty ports forced open to foreign trade following the British victory over China in the First Opium War. The subsequent 1842 Treaty of Nanking and 1844 Treaty of Whampoa allowed the establishment of the Shanghai International Settlement and the French Concession. The city then flourished as a centre of commerce between China and other parts of the world (predominantly Western countries), and became the primary financial hub of the Asia-Pacific region in the 1930s.<sup>[16]</sup> However, with the Communist Party takeover of the mainland in 1949, trade was limited to other socialist countries, and the city's global influence declined. In the 1990s, the economic reforms introduced by Deng Xiaoping resulted in an intense re-development of the city, aiding the return of finance and foreign investment to the city.<sup>[17]</sup>

Shanghai has been described as the "showpiece" of the booming economy of mainland China;[18][19] renowned for its Lujiazui skyline, and museums and historic buildings, such as those along The Bund, as well as the City God Temple and the Yu Garden.









## Chemnitz to Shanghai



## Chemnitz to Shanghai



## The City of Shanghai

- The most populated city in China (~25 million habitants)
- Connected to the world by most major airlines:



## Pudong International Airport (PVG)



### Conference Venue close to the city center



### Shanghai

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### Shanghai Maglev Train

From Wikipedia, the free encyclopedia

This article is about the magley. For other uses, see SMT (disambiguation).

The Shanghai Maglev Train or Shanghai Transrapid (Chinese: 上海磁浮示范运营线) is a magnetic levitation train, or maglev line that operates in Shanghai, China. The line was the third commercially operated magnetic levitation line to open in history. It is the fastest commercial high-speed electric train in the world.<sup>[1]</sup> The train line was designed to connect Shanghai Pudong International Airport and the outskirts of central Pudong where passengers could interchange to the Shanghai Metro to continue their trip to the city center. It cost \$1.2 billion to build.<sup>[2]</sup> The line's balance of payments has been in huge deficit since its opening. From 2004 to 2006, Shanghai Maglev Transportation Development Co. Ltd, the company which runs the line, had more than 1 billion RMB in losses.<sup>[3]</sup> The line is not a part of the Shanghai Metro network, which operates its own service to Pudong Airport from central Shanghai and from Longyang Road Station.

Contents [hide]		SMT
Background		Overview
orv	Transit type	Magnetic levitation
on	Number of lines	1
Stations Operating Costs	Number of stations	2
ruction		Operation
is	Began operation	2004 (commercial)
transfer	Operator(s)	Shanghai Maglev Transportation Developm
		Co., Ltd.
		Technical
	System length	30.5 km (18.95 mi)

### Background [edit]



The line runs from Longyang Road station in Pudong to Pudong International Airport, The Pudong International Airport station provides a transfer to Line 2, but the Longyang Road station provides access to Line 2, Line 7 and Line 16. At full speed, the journey takes 7 minutes and 20 seconds to complete the distance of 30 km (18.6 mi),<sup>[4]</sup> although some trains in the early morning and late afternoon take about 50 seconds longer. A train can reach 350 km/h (217 mph) in 2 minutes, with the maximum normal operation speed of 431 km/h (268 mph) reached thereafter.

Hans-Dieter Bott, vice president of Siemens that won the contract to build the rail link, stated that "Transrapid views the Shanghai line, where the ride will last just eight minutes, largely as a sales tool. This serves as a demonstration for China to show that this works and can be used for longer distances, such as Shanghai to Beijing\*.<sup>[5]</sup> However, the decision was eventually made to implement the Beijing–Shanghai High-Speed Railway with conventional high-speed technology. Plans for a shorter maglev extension from Longyang Road to Hangzhou, the Shanghai–Hangzhou Maglev Line, have been suspended.



Speculation that a line would be built from Shanghai to Beijing mounted in 2002. It would cover a distance of about 1,300 km (808 mi), at an estimated cost of £15.5bn.<sup>[8]</sup> The chief executive of ThyssenKrupp, Dr Ekkehard Schulz said he was certain that not only Germany, but many countries would follow the Chinese example. The German government along with

Coordinates: 🚇 31\*12\*14\*N 121\*33\*14\*E

Shanghai Maglev Train Line

上海磁浮示范运营线

Shangha	i Maglev Train
Simplified Chinese	上海磁浮示范运营 线
Traditional Chinese	上海磁浮示範運營 線
Literal meaning	Shanghai Maglev Demonstration Operation Line
Transcriptions	OWS [show]









## Shanghai Food







## Shanghai Food











## Conference Venue close to the city center



### East China Normal University: Campus in City















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### East China Normal University

"Shanghai Normal University (1972–1980)" redirects here. For the former Shanghai Teachers College, see Shanghai Normal University.

East China Normal University (ECNU) is a comprehensive public research university in Shanghai, China. It was formed in 1951 by the merger of the Great China University founded in 1924 and Kwang Hua University (est. 1925) which had its ultimate origins in the St. John's College established in the city in 1879. Its original role was to train teachers for secondary and higher education, as suggested in the name "Normal", but very soon housed top-class researchers and evolved into an elite research-intensive university.<sup>[2]</sup>

ECNU is now organized into more than 22 schools, colleges, and institutes, located in two campuses throughout Minhang and Putuo. The university comprises 2 affiliated schools across the Shanghai metropolitan area: NYU Shanghai in Pudong,<sup>[3]</sup> Asia-Europe Business School in Zizhu International Education Park. ECNU also maintains a National Forest Ecosystem Observation and Research Station in Tiantong National Forest Park, Ningbo, Zhejiang Province.

ECNU is often considered to be one of the most prestigious universities in China and is internationally recognized with institutional partnerships worldwide. Sponsored by the national program "Project 211" and "Project 985",<sup>[4]</sup> the university is a staunch force in the nation's research and innovation,<sup>[5][6][7]</sup> and is reputed to be the "Columbia of the East".<sup>[8]</sup> The university also has strong ties with the China Meteorological Administration, State Oceanic Administration and the Chinese Academy of Sciences.<sup>[9]</sup>

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	Contents [hide]	Former names	Shanghai Normal University (1972–1980)
	1.1 Origins	Motto	求实创造,为人师表
es	1.2 Establishment of the university 1.3 1980 to present	Motto in English	Pursue what we have not been taught, and practice what we are going to teach <sup>[1]</sup>
	2 International partnerships	Type	Public (National)
n	2.1 Study China Programme	Established	1951
	2.2 Diplomats' Program	Dresident	Chen Oun
	3 Academics	President	
	3.1 Full-time schools and colleges	Students	32,000
	3.2 Unconventional colleges	Location	Shanghai, China
	3.3 Advanced research institutes	Campus	Putuo Campus
DF	4 Research		(1072.25 acres)
n	4.1 Key laboratories		Minnang Campus
o	4.1.1 State key laboratories	Calara	
	4.1.2 Key laboratories of provincial level and ministerial level	Colors	ECNU Red
	4.1.3 Key research bases in humanities and social science	Affiliations	BRICS Universities League
	4.1.4 Joint Research Centre		Alliance
	5 Faculty and staff	Ma读标于 14	
	6 Campus	Mascol- V	
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### Coordinates: 🥥 31°13'41"N 121°24'00"E

East China Normal University (ECNU)

华东师范大学









Research Center for Operator Algebras is under the direct auspices of East China Normal University and was founded in 2010. Currently, it is located on the 15th floor of Science Building A (the highest building) in ECNU ZhongShan North Road campus, Shanghai, China.

This center focuses on the research related to operator algebra and functional analysis. It attaches great importance to collaboration home and abroad. So far it has set up frequent academic relationships and links with several well-known institutes and research centers in terms of scientific researches and cooperations.

Quite a few international conferences and symposiums on operator algebras have been held here. Every year, a number of famous mathematicians are invited to give lectures and conduct researches in the center.

> To promote the developments in operator algebra and related fields, we welcome students and visiting scholars all over the world to come for study and work (for either long term or short term).

## **Visitors:** Leading Experts







Prof. Uffe Haagerup(left) President Qun Chen(right)

为 ?Uffe Haagerup と十八当中



### 華東师能大學 Research Center for Operator Algebras, ECNU 算子代数研究中心









陈 George Elliott

## **International Visitors**



## **International Visitors**



### **Domestic Visitors**





### **Domestic Visitors**







## **Annual Activities**

- Special Week on Operator Algebras: International Conference
- Spring/Autumn Operator Programs
- Graguate Forums
- Summer School on Operator Algebras





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### Transportation

### Routine from Airport to ECNU

• Arriving at Hongqiao International Airport: (The distance is about 5.43 mi)

### 🚔 By taxi (no transfer)

It will cost about CNY ¥40 for the 30 minutes taxi drive from Shanghai Hongqiao International Airport to East China Normal University (ECNU).

### • Arriving at Pudong International Airport: (The distance is about 31.63 mi)

### 🛱 By taxi (no transfer)

It will cost about CNY ¥ 200 for 1 hour taxi drive from Pudong International Airport in the daytime and CNY ¥ 250 at night to ECNU.

### 😔 By subway (transfer twice)

First, take subway Line 2 (Identification Color: light green ) to Zhongshan Park station(中山公园地铁站). It takes about 60 minutes from Pudong International airport to Zhongshan Park station stop, with the fare CNY¥7. You will have to transfer from 4-carriage train to 8-carriage train at Guanglan Road station. Then, take a taxi to ECNU(华东师范大学). This will cost CNY¥14 for approximately 7 minutes taxi drive.

### Special Notes:

- 1. You can take Shanghai Maglev Train (SMT) to Longyang Road station near the east end of Line 2.
- 2. The east extention part of Subway Line 2 is running separately from the other part. Passengers from Pudong International airport will get off the 4-car metro train at Guanglan Road station and change to an 8-car train to go ahead.
- 3. Pudong Airport station of Subway Line 2 is located between T1 and T2. Follow the sign to get to the right terminal.

### Sy subway + maglev (transfer twice)

First, take the Shanghai Maglev Train to Longyang Road station. The maximum speed of Maglev Train can reach up to 430km/h. It takes only 8 minutes from the Pudong International airport to the termination stop (Longyang Road station), with the fare about CNY¥50. The price of favorable single trip ticket would be CNY¥40 for passengers who take airplane at the same day. Second, in Longyang Road station (龙阳路地铁站), please take subway line 2 to Zhongshan Park subway station(中山公园地铁站). It takes about 30 minutes from the Longyang Road station to Zhongshan Park station, with the fare about CNY¥4. Third, take a taxi to ECNU.



## Facilities available

- Internet Connections (ECNU wifi, Eduroam, etc.)
- IT services at the conference venue
- ATM machines, convenience stores nearby...

## Local people in charge







Xiaoman Chen (Fudan University)

Huaxin Lin (ECNU & Oregon) Guoliang Yu (Fudan and Texas A&M) Kunyu Guo (Fudan University)

### 复旦大学

Fudan University, located in Shanghai, China, is one of the most prestigious and selective universities in China; It is consistently ranked in the world's top 100 most academic universities. It is also a member in the C9 League. Its institutional predecessor was founded in 1905.

## Local organizers

- Xiaoman Chen (Fudan University)
- Kunyu Guo (Fudan University)
- Huaxin Lin (ECNU and University of Oregon)
- Qin Wang (East China Normal University)
- Yi-jun Yao (Fudan University)
- Guoliang Yu (Fudan University and Texas A&M University)

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# IW0TA2018

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